

-1-

**SUBSTITUTE SPECIFICATION****WOBBLE SIGNAL PROCESSING APPARATUS****FIELD OF THE INVENTION**

The present invention relates to a signal processing system in the technology of digital signal processing for optical discs (recording media).

**BACKGROUND OF THE INVENTION**

OK  
to  
enter  
by

In conventional wobble signal processing apparatus, means for processing signals by an analog system are utilized (see, for example, Japanese Examined Patent Publication No. Hei.6-19898). As methods for phase-modulating wobbles on tracks by these conventional wobble signal processing apparatus, methods such as BPSK, DPSK, and QPSK have been proposed.

However, the analog processing of the conventional wobble signal processing apparatus is easily affected by processing variations in the semiconductor processing and, for example, the resistance or capacitance value may deviate from a set value by several to a dozen or more percent. In addition, deviation of a supply voltage value in the power supply unit may cause a fatal problem in the analog system that requires a fine set value. For example, when a filter parameter such as the cutoff frequency of a BPF (Band pass filter) or LPF (Low pass filter) deviates, the filter characteristics are deteriorated. When the power supply value of an analog unit cannot obtain a set value with stability, the supply voltage characteristics vary, and then the filter characteristics are deteriorated. Further, as the delay amount